

IN THE CLAIMS

1 85. **(Interference)** (Twice Amended) An electromechanical lock cylinder, comprising:
2 an outer shell having a bore formed therein and a cavity extending from the bore
3 into the shell;
4 a barrel disposed within the bore in the shell and being rotatable relative thereto;
5 a side bar cooperating between the shell and the barrel for selectively permitting
6 and blocking rotation of the barrel with respect to the shell, the side bar having a first portion
7 engaging the barrel and a second portion removably received in the cavity in the shell, the side
8 bar being movable relative to the barrel;
9 wherein at least one electromechanical locking member is disposed within the
10 barrel and is positionable in a barrel blocking position blocking rotation of the barrel with respect
11 to the shell, and also is positionable in a non-barrel blocking position permitting the side bar to
12 be moved relative to the cavity in the shell to rotate the barrel with respect to the shell;
13 an electronically powered drive mechanism located within the barrel and
14 cooperating with the electromechanical locking member to selectively move the locking member
15 from the barrel blocking position to the non-barrel blocking position in which the side bar moves
16 out of the cavity and engages the locking member; and
17 control means for activating the electronically powered drive mechanism in
18 response to an authorized attempt to operate the lock cylinder.

1 88. **(Interference)** A lock cylinder according to claim 85, wherein the first portion of the
2 side bar is an outer edge and the second portion is an opposite inner edge, and when the at least
3 one locking member is in said barrel blocking position the outer edge of the side bar is received
4 in the cavity formed in the shell, and wherein the at least one locking member has a groove
5 which receives the inner edge of the side bar when the at least one locking member is in said
6 non-barrel blocking position.

1 89. **(Interference)** (Twice Amended) A rotatable lock barrel for insertion into a lock
2 cylinder having a bore formed therein, the barrel comprising:

3 an elongated, generally cylindrically shaped barrel member having an exterior configured
4 for receipt in a bore of a lock cylinder and an interior containing an electromechanical locking
5 member, the barrel member having a recess formed therein;

6 wherein the locking member is disposed in the recess of the barrel member and is
7 substantially entirely contained within the barrel member, the locking member including a groove
8 and the locking member being movable to a position in which the groove of the locking member
9 is placed in an alignment;

10 the recess in said barrel member being configured to receive at least a portion of a
11 movable side bar of a lock cylinder to permit the side bar to move into and out of engagement
12 with the groove of the locking member for selectively permitting and blocking rotation of the
13 barrel member with respect to a lock cylinder when positioned therein;

14 an electronically powered drive mechanism located within the barrel member for moving
15 the electromechanical locking member to a position in which the groove of the locking member

is in said alignment.

90. **(Interference) (Non-elected)** A process of retrofitting a mechanical cylinder lock to form an electromechanical cylinder lock, the process comprising steps of:

providing a mechanical cylinder lock including an outer shell with a bore, a first rotatable barrel located in the bore, and a side bar for preventing and permitting rotation of the barrel within the bore in the shell;

removing the first barrel from the shell;

providing an electronically powered rotatable barrel having an exterior adapted to substantially correspond to the bore in the shell, and including:

at least one electromechanical locking member disposed in the barrel, the electromechanical locking member being positionable to permit the side bar to engage the locking member in a non-barrel blocking position which permits the barrel to rotate with respect to the shell, and the electromechanical locking member also being positionable in a barrel blocking position which blocks rotation of the barrel with respect to the shell; and

an electronically powered drive mechanism cooperating with the electromechanical locking member to selectively move the locking member from the barrel blocking position to the non-barrel blocking position in which the side bar engages the locking member to rotate the barrel and operate the lock; and

securing the electronically powered rotatable barrel in the bore in the shell to form an electromechanical cylinder lock, the lock including control means carried by at least one of the barrel and bore for energizing the electronically powered drive mechanism in response to an

21 authorized attempt to open the lock.

1 91. **(Interference)** (Once Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior
3 cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said
5 hollow recess, said cylinder plug comprising a first base perforated by a keyway and a second
6 base separated by an axial length of said cylinder plug from said first base, said second base
7 disposed to support a cam;

8 a bar interposed between said shell and said cylinder plug to reciprocate generally
9 along a radial plane between a first position engaging both said shell and said plug while
10 obstructing rotation of said cylinder plug within said recess, and a second position
11 accommodating said rotation when a torque is externally applied to said keyway to rotate said
12 cylinder plug within said shell;

13 a locking mechanism borne by and rotating with said cylinder plug, said locking
14 mechanism being interposed between said cylinder plug and said bar, and exhibiting a first
15 disposition hindering said reciprocation and, in response to insertion of a key in physical
16 conformance to said locking mechanism, exhibiting a second and different disposition
17 accommodating said reciprocation; and

18 an electrical operator borne by said cylinder plug and rotatable with said cylinder
19 plug, said electrical operator being electrically operable to respond to a control signal by moving
20 independently of said bar between a first orientation providing obstruction of said reciprocation

21 by said bar and a second and different orientation removing said obstruction.

1 120. **(Interference)** A rotatable lock barrel for insertion into a lock cylinder having a
2 bore formed therein, the barrel comprising:

3 an elongated, generally cylindrically shaped barrel member having an exterior configured
4 for receipt in a bore of a lock cylinder and an interior containing a plurality of electromechanical
5 locking members, the barrel member having a recess formed therein;

6 wherein the locking members are disposed in the recess of the barrel member and are
7 substantially entirely contained within the barrel member, each of the locking members including
8 a groove and the locking members being movable to a position in which the grooves of the
9 locking members are aligned;

10 the recess in said barrel member being configured to receive at least a portion of a
11 movable side bar of a lock cylinder to permit the side bar to move into and out of engagement
12 with the grooves of the locking members for selectively permitting and blocking rotation of the
13 barrel member with respect to a lock cylinder when positioned therein;

14 an electronically powered drive mechanism located within the barrel member for moving
15 the electromechanical locking members to a position in which the grooves of the locking
16 members are aligned.